Plan/23/-MoH/2016/05

Maldives Vision 2020- Action Plan

Hussain Rasheed

State Minister

Ministry of Health

Date: 26th June 2016

\

MALDIVES VISION 2020 ACTION PLAN

2010-2020

The main objective of VISION 2020 is to eliminate the main causes of avoidable blindness by the year 2020 by facilitating the planning, development and implementation of sustainable national eye care programmes based on the three core strategies of disease control, human resource development and infrastructure and technology, incorporating the principles of primary health care.

CENTER FOR COMMUNITY HEALTH AND DISEASE CONTROL
MINISTRY OF HEALTH AND FAMILY

Plan/23/-MoH/2016/05

Maldives Vision 2020- Action Plan

Hussain Rasheed

State Minister

Ministry of Health

Date: 26th June 2016

1. INTRODUCTION

According to WHO, one third of the 180 million visually disabled populations in the world and half of the world's blind live in the South East Asia region. As per WHO document on strategic plan for VISION 2020: THE RIGHT TO SIGHT (WHO ICP/OSD 002), in Maldives 0.80 percent of the population are blind and 64% of blindness is due to cataract followed by refractive errors and low vision childhood blindness.

Approximately ninety percent of the blindness is avoidable i.e. readily treatable and/or preventable. Cataract, refractive errors, childhood blindness are all preventable and timely interventions can restore vision to the majority of the affected persons. Recognizing the right to sight as a fundamental right of all people, WHO has launched VISION 2020, THE RIGHT TO SIGHT campaign. It is therefore imperative to take up the challenge and make a concerted effort and mobilize all resources to alleviate blindness through a national policy on VISION 2020.

The main objective of VISION 2020 is to eliminate the main causes of avoidable blindness by the year 2020 by facilitating the planning, development and implementation of sustainable national eye care programmes based on the three core strategies of disease control, human resource development and infrastructure and technology, incorporating the principles of primary health care.

1. SITUATION ANALYSIS

2.1 Country General Profile

The Maldives consists of approximately 1,190 coral islands grouped in a double chain of 26 atolls, along the north-south direction, spread over roughly 90,000 square kilometers. The atolls of Maldives encompass a territory spread over roughly 90,000 square kilometers, making it one of the most disparate countries in the world. It features 1,190 islands, of which 164 are inhabited. Maldives has a population of approximately 300,000 which makes Maldives the smallest Asian country in both population and area.

Throughout the country there are 6 Regional Hospitals, 13 Atoll Hospitals, 87 Health Centers, 37 Health posts and 51 Family Health Sections. More over in Male' the capital of Maldives, where more than one third of the population reside, 2 tertiary level hospital exists one in government and one in private sector.

Overall literacy rate in this country is 98.9 percent. Almost one third of the population is youth, i.e. 93,682 and 3-4 percent of the population is over 65 years. In view of its location Maldives has maximum exposure to ultraviolet rays through sun sand and sea. Due to the rapid industrial and economic developments throughout the country, occupational and environmental injuries are also on the rise.

2.2 epidemiological patterns of ocular disorders

The common eye diseases in the country are cataract, refractive errors, Pterygium, glaucoma and others. According to the local experts, Ocular Toxoplasmosis is one of the major causes of permanent visual impairment for the most productive age group of 10-45 years in the country. The Ministry of Health and Family in collaboration with WHO conducted an awareness workshop on Current Diagnosis and Treatment of Toxoplasmosis which recommended Ocular Toxoplasmosis to be included in the Action Plan of Vision 2020. To gain an insight on the status of toxoplasmosis, a screening was done at Gn. Fuvamulak in 2009 which showed that 3.03% of the screened persons had effects of toxoplasmosis.

Other emerging issues are glaucoma, injury, anterior segment infection, diabetic retinopathy and others. Since there is very little data or statistics available on eye diseases and conditions, some data which has so far not been analyzed does exist in the form of hospital records. According to WHO criteria of vision less than 3/60, approximately 46 percent blindness is due to cataract in this region.

Retrospective analysis of surgical cases from one of the tertiary care hospitals, IGMH indicate cataract being commonest (47.48 – 70.0 %) of all surgeries between 2003 – 2006. Pterygium is next in order during the same period (15.5 – 26.48 %) followed by lid surgeries and other surgeries. The out patient department records of the hospital indicate almost 20 – 25 % of cases having refractive errors. Information obtained from practicing Ophthalmologist in private sector (F M Didi Eye Clinic) indicate the same trend for surgeries i.e. cataract being the commonest 65 % followed by Pterygium and other surgeries. The out patient department records data again confirm the earlier observation that refractive error is the main disease (38 %) to tackle in this country.

2. CHALLENGES

3.1 LACK OF EVIDENCE BASE

There has been no population based survey or cross sectional survey on blindness, disease pattern and management in Maldives. The available data are primarily form retrospective sources and hence are inherently biased.

3.2 LIMITED AVAILABLE INFRASTRUCTURE

There is limited available infrastructure for eye care in the country. The Department of Ophthalmology of the Indira Gandhi Memorial Hospital is the only quality eye care institution in the country which caters to the eye care of the entire population and hence it is overloaded. More over there is no system or guidelines of proper referral of ophthalmic cases from peripheral health posts, centers and hospitals.

3.3 LIMITED HUMAN RESOURCE

There is lack of human resources at various level of eye care like primary and middle level and secondary eye care personnel or optometrists. Also there are no doctors with training to indentify eye conditions and manage eye injury. There has been little or no training of primary health care workers in prevention or early identification and management of eye conditions.

3.4 GEOGRAPHICAL SEPERATION

It is difficult to provide services to all populated islands due to their geographical separation in the ocean. Besides the distance and time, transportation costs add to the general health care cost and are a burden on the population.

3.5 RAIN WATER HARVESTING

Rain water harvesting is a major method of household collection of water for domestic purposes and chances of water borne infection especially Toxoplasmosis is high in Maldives.

4. OBJECTIVE

4.1 Create general awareness about preventive eye health

4.2 To provide quality eye care to the affected population

4.3 To ensure complete coverage of eye care services to the inaccessible and underserved areas

4.4 To develop capacity building for eye care services by providing support for equipment and material and man power training.

4.5 Collect data and evidence base

4.6 Decreasing blindness from preventable causes by encouraging early detection.

5. PROPOSED EYE CARE INFRASTRUCTURE FOR MALDIVES

In the proposed structure primarily three tier / level Eye care services is envisaged.

5.1 PRIMARY EYE CARE:

The services in this level will blend with the existing health centers and posts. The personnel available can be trained in recognizing general eye diseases and refractive error and refer them to higher center i.e. secondary centers (atoll hospitals). This requires training of the existing staff of the primary care services.

5.2 SECONDARY EYE CARE:

The secondary eye care services will be located in six regional atoll hospitals. Besides treating common Eye diseases, these centers will also perform cataract surgery and other common surgeries like Pterygium. These six regional hospitals will require the services of six trained ophthalmic personnel who will be able to manage common eye ailments and refer

cases who require specialized care. They will also conduct school eye health screening and find out optometric refraction errors. Further, services of two Ophthalmologists will be required in at least two upgraded regional atoll hospitals, one in South and the other in North of Maldives region. The eye surgeries at regional atoll hospitals will be performed by the visiting Ophthalmologists from the two upgraded regional atoll hospitals in the South and North and from the tertiary Eye care hospital i.e. IGMH.

5.3 TERTIARY EYE CARE:

This will be situated in the Department of Ophthalmology, IGMH. This center will provide professional leadership in ophthalmic care for the entire country. It will provide specialty eye care at least in three super specialties of Ophthalmology

a. Training, updating, refresher course for manpower on regular basis for the personnel at primary and secondary level.

b. A nodal officer from this department will be in charge of Vision 2020 programme and will assist the Ministry of Health in all matters of blindness and eye care.

c. The Department of Ophthalmology will also be represented in the prevention efforts of toxoplasmosis.

d. The center will be involved in conducting research in areas of high priority eg Toxoplasmosis and develop own guide line of clinical case management.

VISION 2020 ACTION PLAN 2010-2015

This plan was prepared based on the directions and ideas provided by identified Working Groups during the National Vision2020 workshop, 28th September 2009, Stelco Male. The plan looks at key areas for action, barriers to them, broad solutions and specific activities that can be drawn from the solutions. The plan is followed by a monitoring and evaluation framework.

Activity Areas

I. **Creating general awareness**
II. **Identified priority conditions and areas**
III. **Resources and infrastructure**
IV. **Quality of eye care services and technology**
V. **Availability and affordability of eye care services**
VI. **Data and Evidence base**

AREA	Barriers challenges	Solutions	Activities	Responsible partners
CREATING GENERAL AWARENESS				
Improve general public awareness of eye diseases and removing misconceptions about disease.	1. Lack of general public awareness of general eye health. 2. Lack of general public awareness of specific eye diseases like	Health Education	1.1Media advertisements, leaflets/fliers/ talk shows produced/conducted targeting toxoplasmosis, Cataract, Glaucoma, Eye injuries 1.2Two health activities in each school targeting prevention of injuries to the eye[1] and early detection of refraction errors 2.1Targeted education campaign against	CCHDC/ School Health-MoE

[1] Prevention of Viral Conjunctivitis and communicable eye diseases depend on existing school health promotion activities targeting hand hygiene.

	toxoplasmosis, diabetic retinopathy. 3. Lack of awareness and misconceptions about cataract		toxoplasmosis prevention x 1per year (Leaflets, TV/ Radio programs) 2.2 Workshops for health professionals x 1per year 3.1 Preparation of a toolkit 3.2 Training programmes for teachers for early detection x 1per year	
Encourage early detection and referral	1. Lack of general public awareness of importance of early detection 2. Lack of referral and treatment guidelines 3. Lack of standards	Health promotion on benefits of early detection of eye diseases/ conditions	1.1 Screening programmes organized regularly by public health units targeting at risk population (school children, diabetics, aged, welders) 1.2 Advocate regular eye checkups from all public health units(provide tools eg.Snellers charts) 2.1 Routine screening of high risk antenatal mothers for toxoplasmosis 3.1 Produce guidelines and standards for treatment and referral	CCHDC – PHU QAID-MoHF
IDENTIFIED PRIORITY CONDITIONS AND AREAS				
Reduce blindness due to cataract	1. Change in environmental conditions, diet and life style.	Life style changes. Advocate use of UV protective sunglasses	1.1 Education to general public on protective measures in association with private optical service providers.	Private Sector / CCHDC
	1. Increase in percentage of old age population	Better service provision for the aged	1.1 Effective Control and Management of Chronic Diseases like Hypertension, Diabetes (Covered by National NCD Strategic Plan)	QAID/ HSC - MoHF

			1.2 Early Detection of eye conditions in NCDs	
Childhood visual impairment and blindness	1. Lack of awareness of parents.	Parents improved awareness of transmitted and inherited conditions	1.1 Education package for mothers 1.2 Annual screening of school children of all ages.	CCHDC/ School Health -MoE
Eye injuries at work[2] place and industry	1. Non compliance to safety instructions 2. Absence of national industrial safety regulations 3. Ignorance	Follow safety instructions Eye safety guidelines Orientation for workers	1.1 Advocacy to employers to provide protective eyewear 2.1 Introduce eye safety guideline for industry and workplace settings- 2.2 Produce and distribute eye safety guidelines- 3.1 Produce an Educational video and materials on eye safety precautions 3.2 Advocacy to employers to facilitate education on eye care to their employees-	CCHDC/ Construction Industry, Factories etc
Toxoplasmosis	1. Consumption of toxoplasma contaminated water	Use of water filters Safe rain water collections	1.1 Educate on safe rain water collections in target communities 1.2 Hold a public awareness campaign to	CCHDC/ Health Directorate

[2] Workplace safety in general is covered by Occupational Health Safety program of CCHDC. Enforcement of Occupational Health Safety requires act of parliament

			encourage use of water filters or other safe sources of water	
	1. Long and recurrent nature of diseases	Review follow up and treat patients Counseling	1.1 Reassurance and counseling.	HSC-MoHF
RESOURCES AND INFRASTRUCTURE				
Mapping human resource and infrastructure	1. Lack of information on available human, infrastructural resources (ophthalmologist, optometrist etc)	Mapping of eye care resources	1.1 Mapping of eye care resources conducted	CCHDC
Developing Infrastructure and technology	1. Lack of funding 2. Lack of planning for eye care services at different levels	Vision 2020 Action Plan	1.1 Advocacy to policy makers 1.2 Implement Vision 2020 Action Plan 2.1 Make angiography, double frequency YAG laser, Fundus Camera available (at tertiary level of health services)	MoHF / HSC
Human resource development	1. High cost 2. No long term human resources policy/ plan for ophthalmic services	Explore funding from Government and private and international sources	1.1 Identify courses, personnel and funding sources	Human Resource Development –MOHF / Training Division/ HSC
	1. Inadequate ophthalmic curriculum in community health workers training at FHS	Produce community health workers/nurses curriculum	1.1Review community health worker/nurses curriculum 1.2 Prepare separate training module on eye care.	FHS/VISION 2020 Committee
QUALITY OF EYE CARE SERVICES AND TECHNOLOGY				

	1. Lack of ophthalmic equipment at various levels of health care	Explore funding from Government and private and international sources	1.1 Provide all eye units with adequate ophthalmic equipment 1.2 Conduct situational analysis on availability and functional status of ophthalmic equipment at Atolls Hospitals and tertiary eye centre's 1.3 Develop lists of minimum requirements of ophthalmic equipment at various eye units	HSC/ QAID
Improvement in Eye care standards	1. Lack of Human resources equipment and infrastructure 2. As there is no Health Act, no action can be taken against parents refusing preventive measures like Vitamin A and vaccines	Ensure penalties for non-compliance with prevention measures e.g. mandatory vaccination and Vitamin A with in future Health Act	1.1 Ensuring that preventive programmes are carried out, like administration of Vitamin A 2.1 Develop guidelines to improve eye care at primary level 2.2 Availability and accessibility of easy medical consultation and drugs 2.3 Guidelines for the treatment of the different stages of diabetic retinopathy.	CCHDC-Population Health MoHF / MFDA QAID
Availability and affordability of eye care services				
	1. Increase in reliance on alternative medicine. 2. High cost of spectacle frames and lenses	Availability and accessibility of easy medical consultation and eye care devices. Better coverage of eye care services under health insurance schemes Develop appropriate and acceptable mechanisms for cost sharing of eye care	1.1 Include eye health as part of primary care package. 2.1 Adopt regulatory and policy measures (e.g. insurance schemes) affecting affordability of spectacles, lenses etc with in public and private sector	QAID/ CCHDC NSPA

		services		
	1.Lack of adequate health insurance	Improve coverage of social health insurance	1.1 Advocate government to facilitate improved number of people covered under insurance	NSPA
	1.Key ophthalmic services available only at central level	Services available at several institutions	1.1Development of referral protocols	QAID
	1.Lack of affordable transport limiting access to higher referral services	Hold targeted and scheduled Eye Camps.	1.1 Hold targeted scheduled eye camps.	Health Directorate/HSC
	1.Non-availability of low vision aids (LVA)	Availability of low vision aids (LVA)	1.1 Improve access to low vision Aids with in government and private sectors 2.1 Network with international NGOS and organizations to make low vision aids accessible	MoHF HSC/ Private Sector
Mitigation	1.Lack of awareness 2.Unavailability of Rehabilitation Resources	Involvement of NGOs, Community involvement.	1.1 Involvement of Patient/support group 1.2 Advocacy for policy makers 2.1 Welfare assistance & rehabilitation 2.2 Counseling for people with serious eye conditions	NGOs/ NSPA
DATA AND EVIDENCE BASE				
National data	1. Insufficient population based data	Establish a National register	1.1 Create a reporting and disease surveillance mechanism	CCHDC/ DSD

	2. No register for legally blind people		1.2 Allocate information focal points at central and atoll(regional) levels 2.1 Establish a National register and database of eye conditions 2.2 Allocate human technical resources and support to initiate and maintain a national database	
Studies and Surveys	1. Surveys limited by high cost 2. Lack of Technical capacity to conduct surveys	Explore funding from Government and international sources	1.1 Explore funding from Government and international sources 2.1 Training of people to lead and conduct eye related surveys	CCHDC/ DSD
	1. Lack of information on survey s to be prioritized e.g. studying routes of transmission of T. gondi in the Maldives context.	Research and survey priorities identified	1.1 Conduct two surveys to quantify burden of *T. gondi* in Maldives 1.2 Conduct two qualitative studies in two priority areas related to eye health 1.3 Conduct a burden study of disability due to eye morbidities and premature blindness	CCHDC/ DSD

MONITORING AND EVALUATION FRAMEWORK FOR VISION 2020 PLAN

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
GOAL Reduction of avoidable blindness in Maldives	1. Cataract blindness reduced from estimated 380* cases in 2007 to less than 200 cases in 2015 2. Blindness and low vision due to refractive errors reduced from an estimated 2999* cases in 2007 to2000 cases in 2015 3. Reduction in number of cases of toxoplasmosis reported by 25%.	1.1 Health facility data 2.1 Data gathered by health facilities and Ministry of Health and Family 3.1 Fuvamulak Hospital Laboratory data	1.1 Economic burden of needless blindness reduced 2.1 Increased opportunities for personal development and employment of visually handicapped
PURPOSE Sustainable system of client centered and quality oriented eye care services established	More efficient utilization of available eye care services in government and private sector Availability and accessibility of high quality cataract surgical services increased Affordability of spectacles, lens increased and more children with refractive errors provided with spectacles	1.1 Government policy documents, private sector collaboration. 2.1 health facility reports government policy documents 3.1 data from optical outlets cost of fitting spectacles.	1.1 Enhanced utilization of available eye care services 2.1 Increase in quality and number of cataract operations 3.1 Reduction in blindness due to refractive errors

OUTPUTS National VISION 2020 Committee established to coordinate blindness control activities in the country	1. National VISION 2020 Committee formed and Terms of Reference approved 2. Meetings held at least once every two months	1.1 Terms of Reference, Minutes, recommendations	1.1 Prevention of blindness is considered to be a public health priority in Maldives 1.2 Greater coordination of national activities targeting prevention of blindness.
Atoll (regional) level coordination and public-private partnership in blindness control activities strengthened	1. Atoll VISION 2020 Focal points identified 2. Blindness control activities in atolls allocated to available service providers by 31.12.2010 3. Sub-contracting of selected prevention of blindness activities by Government to NGO's	1.1 Register in NCD Division/CCHDC 2.1NCD Division/CCHDC 3.1 Agreements and Technical Reports	1.1 Optimal utilization of available resources through coordination and collaboration between various service providers in atolls 1.3 Target allocation to atolls will increase output 3.1 Support NGO's to continue and expand their services
Medical Officers and CHO at Atolls Hospitals trained in eye care	1. Community Ophthalmology modules developed and included in basic training of community health workers and nurses 2. Training programme (1-2 weeks) and materials developed for medical officers	1.1 Training Curricular 2.1 Training curricula	1.1 Increased efficiency of eye surgeons through trained support staff

	3. CHO trained per year 4. Medical Officers trained / year	3.1 Evaluation reports 4.1 Evaluation reports	
Primary Eye Care strengthened by training Health Assistants from Health Centre	1. Training programme and materials developed 2. Train 10 Health Assistants / year starting from 2013	1.1 Evaluation reports	1.1 Improved diagnostic and therapeutic capacity
All eye health facilities with adequate ophthalmic equipment	1. All eye health facilities have adequate ophthalmic equipment for the designated health service level	1.1 Inspection reports of the health directorate 1.2 Data from Quality Control Division /MoHF	1.1 Improved diagnostic and therapeutic capacity
National Blindness Register Developed	1. National blindness register created by end of 2010	Register in NCD Division/CCHDC	1. Regular reporting
Barriers to cataract surgery reduced	1. Increase of Cataract Surgical Rate from 340* in 2010 to 680 in 2015	Evaluation reports,	1. Public demand for cataract surgery increased

*Baseline: As reported to the main tertiary hospital- Indira Gandhi Memorial Hospital.